

## FEATURES

- Low power losses, high efficiency
- Low forward voltage drop, low reverse current
- Compliant with RoHS requirements, lead-free, halogen-free
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

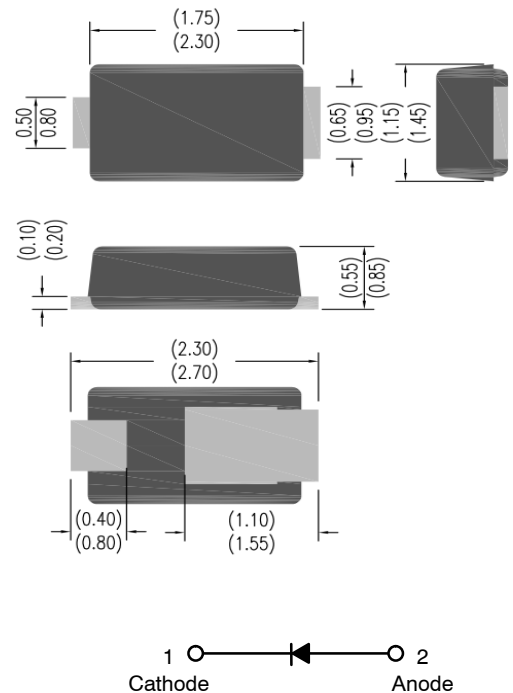
## MECHANICAL DATA

- Package: SOD-323HE
- Terminals: Tin plated leads, solderable per
- Polarity: Cathode line denotes the cathode end

## APPLICATIONS

- DC/DC converters
- Freewheeling
- low voltage high frequency inverters
- polarity protection applications

## SOD-323HE



## Maximum Ratings (Ta=25 °C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS12HE	SS13HE	SS14HE	SS15HE	SS16HE	SS18HE	SS110HE	SS115HE	SS120HE
Repetitive peak reverse voltage	$V_{RRM}$	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	$I_O$	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, $T_J=25^{\circ}C$	$I_{FSM}$	A	25								
Storage temperature	$T_{STG}$	°C	-55 ~+150								
Junction temperature	$T_J$	°C	-55 ~+1								

## Electrical Characteristics (Ta=25 °C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS12HE	SS13HE	SS14HE	SS15HE	SS16HE	SS18HE	SS110HE	SS115HE	SS120HE
Maximum instantaneous forward voltage drop per diode	$V_F$	V	$I_{FM}=1.0A$	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ $V_{RM}=V_{RRM}$	$I_{RRM}$	mA	$T_a=25^{\circ}C$	0.50					0.10			
			$T_a=100^{\circ}C$	10					5			

■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS12HE	SS13HE	SS14HE	SS15HE	SS16HE	SS18HE	SS110HE	SS115HE	SS120HE
Thermal Resistance	R $\theta$ J-A	°C/W	199 <sup>1)</sup>								
	R $\theta$ J-L		21 <sup>1)</sup>								

Note: 1. Per JESD51-3 Recommended Thermal Test Board. Device mounted on FR-4 PCB, board size = 76.2 mm x 114.3 mm

■ Characteristics (Typical)

FIG1: Io-TL Curve

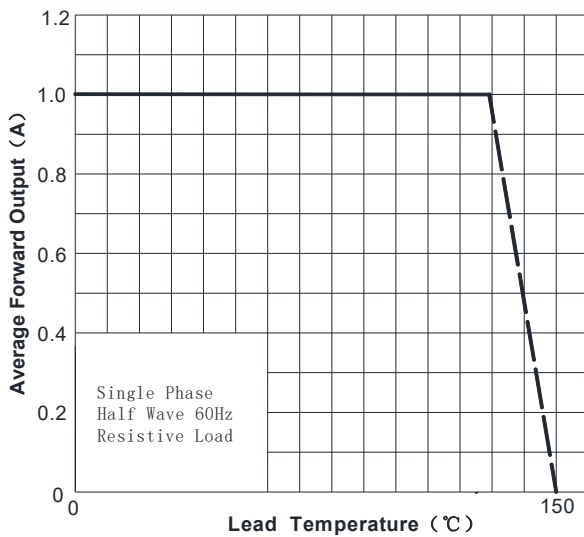


FIG2: Surge Forward Current Capability

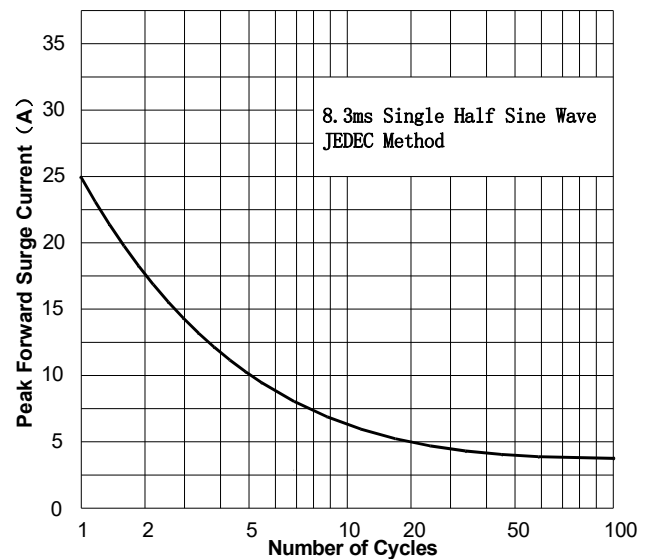


FIG3: Forward Voltage

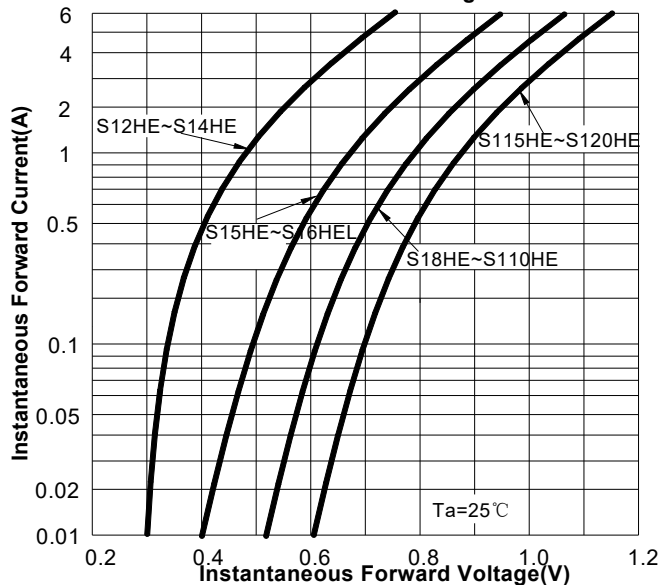


FIG4: Typical Reverse Characteristics

